5 614,7/ H2m 1977 ADC



Montana Department of Health and Environmental Sciences
MONTHLY ACTIVITIES REPORT OF THE AIR QUALITY BUREAU

April 1977

1. Highlights



Depositions taken April 19 by Flathead County Attorney's office regarding pending legal action by this Bureau against the Flathead County commissioners.

HR 250 (Health Study) was passed by the legislature.

2. Ambient Air Quality Network

Standards Exceeded:

The Anaconda Company reported 80 violations of state SO_2 ambient air quality standards in April. Sixty-nine were violations of the state one hour standard, seven were of the state 24 hour standard, two were of the federal 24 hour standard and two were of the federal 1.

TSP* - Anders Res., Columbia Falls, 3 excur. Fed 24-hour std. Sherman Res., Kalispell, 2 excur. Fed. 24-hour std. Anders Res., Columbia Falls, 1 excur. MT 24-hour std.

SO₂ - Microwave, E. Helena, 5 excur. MT 1-hour std. Saddle Mountain, E. Helena, 4 excur. MT 1-hour std. Laural, 4 excur. MT 1-hour std.

Hydrocarbons -

Billings, 20 excur. Fed. std.

CO - Missoula, 4 excur. Fed. std.

* Total suspended particulate

Air Stagnation Advisories:

No Air Stagnation Advisories were issued during April.

Laboratory Status:

Total determinations for the month - 136 Total samples for the month - 112

Developments:

Routine maintenance and calibration of analyzers carried out.

Great Falls air pollution laboratory evaluated.

Revised and issued new calibration procedures for the ${\tt CO}$ analyzer. New calibration rules are now in effect.

3. Permits and Tax Credits

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Construction Permits:

Applications
Federal Bentonite, Valley County, bentomite drying plant
Montana Department of Highway, Hill County, portable asphalt hot mix plant
Meyer Construction Co., Powell County, portable asphalt hot mix plant
Cook and Klabunde, Gallatin County, gas incinerating toilet
Montana Light and Power Co., Lincoln County, venturi scrubber on boiler no. 9
Montana Light and Power Co., Lincoln County, venturi scrubber on boiler no. 7
Pfizer Inc., Beaverhead Co., replacement of dust collectors
Spring Creek Forest Products, Inc., Wheatland Co., tepee burner

Approved Pioneer Ready-Mix, Gallatin County, portable hot mix asphalt plant and portable gravel crushing plant Decker Coal Company, Big Horn County, coal handling facility

Cook and Klabunde, Gallatin County, gas incinerating toilet
Meyer Construction Company, Powell County, portable asphalt hot mix plant
Montana Department of Highways, Hill County, portable asphalt hot mix plant
Mortensen Construction Co., Teton County, portable gravel crushing plant
Mortensen Construction Co., Lewis and Clark County, portable gravel crushing plant
Mortensen Construction Co., Chouteau County, portable gravel crushing plant
Continental Oil Company, Yellowstone County, sour water stripper vent incinerator
Pfizer Inc., Beaverhead, replacement of dust collectors

Operating Permit:

Hoerner-Waldorf, Missoula, #3 lime kiln extension, \$160,000 (approval of final installation and operation details)

Tax Credits:

Anaconda Co., Anaconda, electric furnace, fluid bed roaster and concentrate handling facility, almost all equipment in application approved, \$25,000,000

4. Variance Status

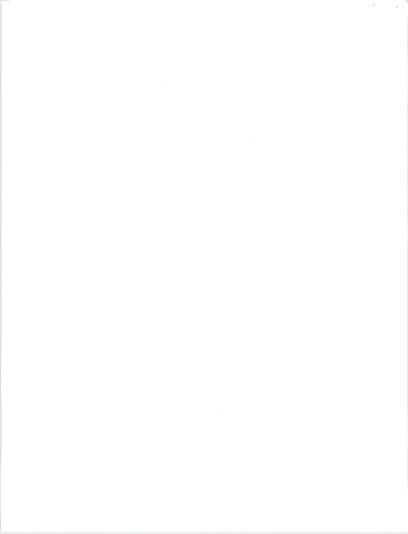
Current Variances:

AAC, Columbia Falls, F^- and particulate, expires 6/30/77, renewal applied for The Anaconda Company, Anaconda, 50_2 , expires 6/30/77, renewal applied for ASARCO, Inc., East Helena, 50_2 expires 6/30/77

New or Renewed:

Anaconda's application for a variance from the visibility rule for the smelter has been scheduled for the June Board meeting.

Anaconda's application for a renewal of the variance from the particulate emission rule for the smelter has been scheduled for the June meeting. The need for this extension has disappeared since the last reverberatory furnace was shutdown about March 7.



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Anaconda's application for a variance from the particulate emission rule for the foundry at Anaconda has been scheduled for the June Board meeting.

5. Enforcement Actions

Citations:

Al Cadeau, East Helena, open burning in violation of rule \$1490 (Open Burning Restrictions)

Black Lumber Co., Lame Deer, tepee burner in violation of rule \$14030 (Wood Waste Burners)

ASARCO, Inc., East Helena (26 citations), smelter in violation of Federal 24-hour and 3-hour ambient air quality standard for sulfur dioxide.

Castle Mountain Corp., White Sulfur Springs, tepee burner in violation of rule \$14030\$ (Wood Waste Burners)

Hoerner Waldorf Corporation, Missoula (5 citations) #3 Recovery boiler in violation of rule \$1400 (Permits, Construction and Operation of Equipment)

Notices of Violation:

None

Order for Corrective Action:

None

Court Actions:

The Department has filed suit against Lake, Lincoln, Sanders, and Flathead Counties to prohibit them from allowing open burning without a permit. Summons served on Lake County Commissioners April 11, 1977, regarding open burning issue.

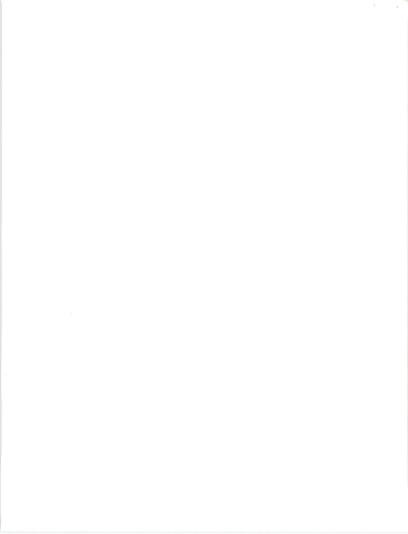
The district judge from Libby should rule on the Lincoln County case by May 13, 1977.

6. Tepee Burner and Open Burning

The Board Meeting on the open burning rule is set for June 27.

Tenee Burner Status:

No. at Start 39 New Starts 0 Shutdowns 0 No. at End 39



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Open Burning Permits:

Kalispell Office	142	Sanders County	22
Cascade County	54	Yellowstone County	332
Lake County	131	Rest of State	2971
Missoula County	586	Total Permits	3938

7. Source Tests Performed

Agency Source Tests:

None

Non-Agency Source Tests:

Hoerner-Waldorf, Missoula, 16 tests on recovery boilers, lime kilns, slakers, smelt tanks and hogged fuel boiler - all in compliance.

MDU, Lewis and Clark Power Station, Sidney, test observed by AQB staff.

8. Field Investigations

Belton Livestock, West Glacier, routine inspection Flathead Co. Refuse Disposal Site, Kalispell, wood pile inspection Burlington Northern, Missoula/Trout Creek, right-of-way burning U. S. Gypsum, Heath, Inspection and opacity observation Wolf Point Oil Refinery, Wolf Point, inspection and opacity observation Anaconda Aluminum, Columbia Falls, potline, compliance meeting schedule W. R. Grace, Libby, vermiculate plant, in compliance St. Regis Paper Co., Libby, boiler and veneer dryers, dryers in compliance, boiler meeting compliance schedule. Evans Products, Missoula, veneer dryers, boiler, sander, boiler and dryers in in compliance, sander cyclone to be tested Louisiana Pacific, Missoula, particleboard plant, meeting compliance schedule Hoerner Waldorf, Missoula, recovery boilers in compliance, also observed lime kiln source test. ASARCO, inc., baghouse, zinc plant, sinter stacks, visual observation Phillips Petroleum, Great Falls, inspection and opacity observation Con Agra grain mill, Great Falls, inspection Berkeley Pit, crusher and concentrator, inspection Westco refinery, Cut Bank, inspection Westmoreland Resources, Inc. Sarpy Creek, coal handling facility, inspection Eastmont Forest Products, Ashland, inactive sawmill Black Lumber Co., Lame Deer, sawmill, inspection Peabody Coal Co., Decker, coal handling facility, inspection Western Energy Co., Colstrip, coal handling facility, inspection Montana Power Co., Colstrip, coal handling facility, inspection Decker Coal Co., Decker, coal handling facility, inspection Montana State, Crow Agency, portable batch plant, inspection Kennecott Copper Co., Garfield, Utah, Inspection Inspiration Consolidated Copper Co., Miami, Arizona



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> Phelps Dodge Corporation, Morenci, Arizona, inspection ASARCO, Hayden, Arizona, inspection Kennecott Copper Co., Hayden, Arizona Magma Copper Co., San Manuel, Arizona, inspection Exxon, Billings, inspection Cenex, Billings, inspection Holly Sugar, Billings, inspection Montana Power Co., Corette plant, Billings, inspection MDU, Lewis and Clark Power Station, Sidney, inspection Farmers Union GTA, Glendive, inspection and opacity observation Brand S Lymber, Livingston, inspection and opacity observation Burkland Studs, Livingston, inspection and opacity observation Yellowstone Pine, Belgrade, inspection and opacity observation Park Lumber, Livingston, inspection and opacity observation Willow Creek Lumber, Livingston, inspection and opacity observation Castle Mountain Corporation, White Sulfur Springs, inspection and opacity observation MDU. Miles City, inspection Peavy Co., Miles City, inspection and opacity observation Peavy Co., Glendive, inspection and opacity observation Cyprus Industrial Minerals, Three Forks, inspection and opacity observation Kaiser Cement, Montana City, inspection Anaconda Co., Butte, crusher and concentrator, inspection Montana Pole, Butte, inspection, excessive emissions Kenco Refinery, Wolf Point, inspection

9. Complaints

Belton Livestock Co., odor complaint, no cause for action Hog farm, Fallon, odors, corrected Al Cadeau, East Helena, open burning without permit, citation issued Trempers Drive, Milltown, dust from unpaved road, under investigation

Data Processing Servces

Ambient Data Summary:

Monthly report of March air quality data attached.

Emissions Inventory:

Several updates to the inventory were received from AQCR 142 and 144. One program was replaced on the system.

Prevention of Significant Deterioration:

Trident Talc, Three Forks, inspection

Wrote one letter to a person in Noxon, Montana, answering a request for procedures pertaining to redesignation of area classifications.



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Modeling:

A significant portion of time was spent in the diffusion modeling analysis of Billings AQMA $\rm SO_2$. An analysis was written and submitted to staff for comments. Work was performed in revising the box model for a particulate analysis of Missoula.

11. Environmental Impact Statement

Agency Impact Determinations:

None

Other Agency EIS's Reviewed:

None

12. Status of Studies, Contracts and Reports

Health Study Phase I - EPA in Research Triangle Park is reviewing the data submitted by the Bureau of Records and Statistics.

Health Study Phase II - Funding is approved for this phase but we are waiting for EPA to finish reviewing the data from Phase I.

HB 250 - This air pollution-morbidity study bill was passed by the Legislature.
Work currently being done on the exact study design.

Comments were submitted to John Green, EPA, on the Phase II analysis section of the Poplar River study.

ASARCO Troy Project, background study, sampling station set up.

Person hired to evaluate copper smelter technologies and reports submitted by The Anaconda Co. His report is due to be submitted in late May.

Work continued on S.E. Coal Area; Billings CO and TSP; and Missoula TSP AQMA's.

Public information program for AQMP's - consultant should be hired in the near future to work on this.

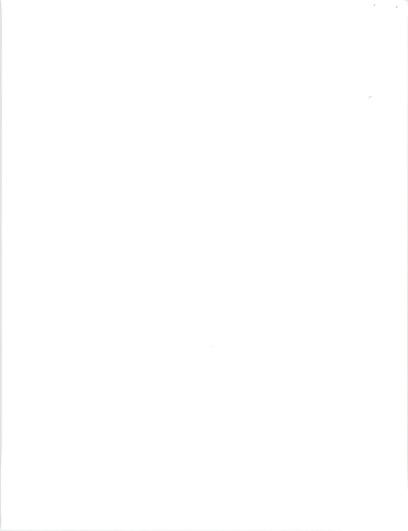
Montaina Power Company, Colstrip ambient monitoring - study just begun, goals are to detail what should be monitored, where, intensity and bring them to a common data reporting format.

13. Schools and Trailing

Calibration seminar held April 5, 6 and 7. Representatives from both industry and local agencies attended.

Solar Energy Seminar, April 28, Helena

Smoke School, April 5 and 7, Helena.



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14. Public Hearings and Meetings

Public Hearings:

Senate hearing on the HB 250 Health Study on April 12.

Meetings Attended:

Western Energy Quality Assurance meeting, Denver Montana Chapter of the American Statistical Association in conjunction with the Montana Academy of Sciences, Helena Montana Airshed meeting, Kalispell Hazardous Material Response Team, Helena DNR, Circle West strip-mine monitoring Lewis and Clark Co. personnel, open burning permit system, Helena Hoerner Waldorf, citations, Helena Butch Rachal, EPA, local programs, Helena EPA reps., grant committments, Helena Lincoln Co. sanitarian, ASARCO Troy project, Libby Evans Products, source testing, Missoula Energy Advisory Commiccion, Helena Westmoreland Resources, construction permits, Sarpy Creek Highway Impact Evaluation Group, Helena Missoula TSP AQMA, Missoula Dr. Cook, Eastern Montana College, re. Cenex statistical analysis, Billings Holly Sugar personnel, re. rotary dryer control program, Billings

Intra-Staff Meetings:

Staff meeting for state and local staff, Helena Meteorological study, Columbia Falls Billings AQMA SO₂, Helena Mid-year evaluation, Helena Equipment maintenance & calibration, Helena Billings SO₂, Helena EPA, contract committment progress report, Helena

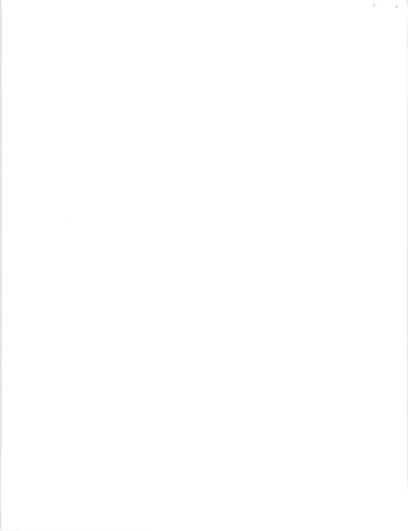
15. Public Information Requests

Rules - 11 Clean Air Act - 3 General Information - 5

16. Fiscal Status

Grants Received:

None



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Monthly Expenditures:

D	Budget	April	enditures Year to Date	Funds Remaining
Program 0630 0631 0633 0637 0681	450,676 74,400 73,999 101,200 76,300	34,465 23,920 17,456 849 3,711	345,266 56,065 60,825 59,472 47,548	103,203 18,336 11,532 41,728 28,752



MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

MONTHS Y SUMMARY OF AIR QUALITY DATA

March 1977

. 01	Lutant: Total Susp	reliued Fa	reneurace			g/cubic m	eter .	Poll	tant: Total Sus					q/cubic m	6761
AREA		HIGH READING			ARITHMETIC AVER.				AREA	HIGH READING				TIC AVER	
AQCR	Site Location	Current	Year-to	Running Year	Year-to-	No. of Mons. of Data	Comments	NQCR	Site Location	Current Month	Year-to -Date	Running Year	Year-to -Date	No. of Mons. of Data	Comments
140	Morton Res. Big Horn Co.	148	148	20B	43.4	3		142	Microwave Jefferson Co.	14	52	66	18.0	3	
	Warren Ranch Big Horn Co.	15	15	146	9.1	3			212 Pacific Ave Lewis&Clark Co	149	149	187	68.8	3	
	Lockwood School Billings	109	109	141	39.4	3		143	Tierney Res. Silver Bow Co. Littlefield Hil	27	27	87	11.4	3	
	KGHL Billings City Hall	74 151	74 151	154	2B.6 63.2	3		1.75	Miles City Glendive	18	102	102	25.1	2	
	Billings Grand Ave. Sch.	52	74	135	35.3	3			Oawson County Ft. Peck McCone Co.	40	91	91	27.3	3	
	Billings Burnstead Orive	467	467	1117	154.3	3	1 excur. MT 24-hr. std.		Broadus Pow.Riv.Co.	51	51	62	14.3	3	ļ
	Billings Laurel Jr.High	39	39	108	29.1	3	24-111. 300.	1	BN Site Colstrip		†		†		
141	Hospital Roof Great Falls	78	129	129	38.2	3		144	McRae Site Colstrip High School	172	172	294	68.5	3	1 Excur. Fed.
	Fire Sta. #1 Great Falls	52 63	869 210	869	97.4 89.4	3		"	Columbia Falls		295	342	114.9	3	Prim. Std.
142	Sil.Bow Gen.Hos Butte Atkins Res.	53	130	182	54.6	3			J. B. Field	73	140	214	55.4	3	
	Butte Richer Res.	17	46	46	21.8	3			Missoula Co. Frenchtown Missoula Co.	165	165	165	49.1	3	1 Excur. Fed. Primary Std.
	Butte Hiway Jct.	121	121	250	43.9	3			missoula co.						
	Anaconda McKinley Res. Granite Co.	37	90	147	35.0	3									

AREA

ACCR Site Location

Pollutant: Miscellaneous Continuous Oata

HIGH READING

Current Year-

Month

0.88 0.88 1.36

0.56 0.56 1.02 0.005 3 3

0.40 0.40 0.40 0.006 0.03

0.03 0.03

	AREA	HIGH R				MIC AVER.	
AQCR	Site Location	Month	Year- to-Date	Running Year		No. of Mons. of Data	Comments
140	Carbon Monoxide 11th & S. 27th Billings 27th & Montana			*			
144	Billings Malfunction Jct. Missoula	1.75	1.75	1.75	0.496	2	
140	Hydrocarbons 27th & Montana Billings	4.80	4.80	10.20	1.905	3	
143	BN Site Colstrip	1.50	2.70	3.50	1.577	3	
143	Methane Hydrocar BN Site Colstrip	1.50	2.20	2,20	1.591	3	
143	Non-Methane Hydr BN Site Colstrip	0.30	0.50	2.00	0.013	3	
143	Nitric Oxida BN Site Colstrip			*****	ļ		
140	Nitrogen Oioxide 27th & Montana Billings		ļ	*	ļ	ļ	
142	Alpine West Butte	154	154	154	0.022	1	20 Excur. Fed. Primary Std.
143	BN Site Colstrip			···			

Units Parts Per Million

Oxides of Nitrogen
BN Site
Colstrip Ozone 140 27th & Montana Billings 143 BN Site 0.04 0.04 0.10 0.015 3 Colstrip Sulfur Oioxide 27th & Montana Billings Laurel Farm 0.01 0.09 0.15 0.002 3 4 Excur. Fed. Primary Std. 0.55 0.61 0.80 0.078 3 Billings Laurel Water Plt Billings 1 Excur. MT 1-hr. std. 142 East Stack E. Helena 0.25 0.25 0.44 0.012 3 1.08 0.18 0.22 0.011 3 Microwave E. Helena 3 0.56 0.015 Saddle Mountain E. Helena 0.16 0.48 E. Helena C-Hill Anaconda Hiway Junction Anaconda Mill Creek Anaconda Post Office Anaconda Cogswell Bldg. Helena RN Site 0.22 1.00 2.54 0.005 3 5 Excur. Fed. Primary Std. 1 Excur. Fed. Primary Std. 2 Excur. MT 1-hr. std. 1 Excur. MT 1-hr. std. 1.33 1.46 1.58 0.035 3

Year

Units: Parts Per Million

Year- No. of Comments to-Date Data

ARITHMETIC AVER

0.017 3

Pollutant: Miscellaneous Continuous Oata

¹⁴³ BN Site *No Oata - Equipment Oown

^{*}No Oata - Equipment Oown



MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

MONTHLY SUMMARY OF AIR QUALITY DATA March 1977

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ł	Pol:	Lutant: Miscella	neous Ind	licators	1	Jnits:			Pol I	utant: Miscellanen	us Indica	tors .		Units		
1		AREA		READING		ARITHMET	IC AVER.			AREA		READING		ARITHME	TIC AVER	
ı	AQCR	Site Location	Current	Year-to	Running	Year-to-	No. of Nons. of	Comments	NQC1	Site Location	Current Month	Year-to -Date	Running Year	Year-to -Date	No. of Mons. of Data	Comments
	142	FLUORIDE PAPERS Mullenburg Powell County	0.060	0.060	0.200	0.050	3		142	Ramsay West Sil. Bow Co. ESE Stauffer			***			
		Lahman's Powell County N Ac Hwy	0.040	0.040	0.08	0.035	3		143	Sil. Bow Co. BN Site Colstrip			***			
ĺ		Powell County Ramsay West Sil. Bow County			***		 		144	McRae Site Colstrip Teakettle #10			**			
ĺ	143	ESE Stauffer Sil. Bow County BN Site			***				'''	Flathead Co. Teakettle #6 Flathead Co.	0.530	0.530	18.670	0.530	3	
0	1	Colstrip McRae Site					ļ			Anaconda South	2.020	\$.000	8.820	2.810	3	
ĺ	144	Colstrip Oehlbom's Mt.8ox Flathead Co.	0.170	0.720	1.710	0.413	3		П	Glac. Park #1 Glac.Natl.Park	0.440	0.610	0.720	0.500	3	
ı		Anaconda South			***		 			Glac. Park #2		0.710	0.610	0.070	"	
ı	1	Glac. Park #1 Glac.Natl.Park	0.270	0.330	0.580	0.280	3		143		22.69	48.15	48.15	30.98	3	
I		Glac. Park #2 Glac.Natl.Park	0.500	0.500	0.580	0.447	3			Fire Sta. #1 Great Falls	10.14	23,75	27.02	16.94	3.	
l	142	FLUORIDE PLATES Durant Canyon	- mg/sq.	cn./30 c		ļ	ļ		14			00 sq. cr 4.380	4.800	3.410	3	
۱		N Ac Hwy Powell County	0.0	0.110	0.110	0.055	3		Ш	Billings East of Laurel Billings	1.760	3.220	2.490	2.490	3	
ı	1	NW on Hill Powell County	0.0	0.060	0.060	0.030	3			Hi-Ball Truckin Billings	g 1.190	1.190	1.410	1.185	3	
1	444	Data not available	at time	of repo	rt					*Data not availabl			rt			

**Site no longer in operation

Pol1	utant: Miscellane	ous Indi	icators		Units			Po	ollu	tant: Misc. Bubb	oler Oata			Units: p	pn	
AREA N		HIGH R	EADING		ARITHMET	TIC AVER.		AREA		HIGH READING			ARITHMETIC AVER			
AQCE	Site Location	Current Month	Year- to-Date	Runn; ng Year		No. of Mons. of Data	Comments	AÇ	СВ	Site Location	Current Month	Year- to-Date	Running Year	Year- to-Date	No. of Mons. of Data	Comments
141	Stock Car Track Great Falls Phillips Ref. E	1	0.575	0.575	0.408	3		14	10	SULFUR GIOXIDE Lockwood Sch. Billings 3/8 Mi. NE Coop	0.0233		0.2012	0.0123	3	
142	Great Falls Phillips Ref.Nl Great Falls Nicrowave F. Helena	0.484 0.310	0.629	0.629	0.556	3		14	13	Billings Scobey Oantels County Fort Peck	0.0	0.0	0.0	0.0	3	
	Hiway Jct. Anaconda C-Hill Anaconda			***						McCone Co. Lame Deer Rosebud County BN Site Colstrip			***			
143	BN Site Colstrip McRae Site Colstrip			***						McRae Site Colstrip NITROGEN OIOXIGE		ļ	***			
								1	43	Scobey Oanjels County Fort Peck McCone County Lame Deer		0.0	0.0	0.0	3	
		1	1			l				Rosebud County			***		<u> </u>	
										8N Site Colstrip McRae Site Colstrip			***	1		
					1											

^{***}Data not available at time of report

